

ABSTRACT

A first integrating circuit 23 converts and outputs electric currents, which are successively input from first groups of photosensitive portions via first switches 21, into and as a voltage. A first CDS circuit 24 outputs a voltage that is in accordance with the variation amount of the voltage from the first integrating circuit 23. A first A/D conversion circuit 25 successively inputs the voltage from the first CDS circuit 24 and converts and outputs the voltage into and as digital values. A first digital memory 26 stores the digital values, which, among the digital values output from the first A/D conversion circuit 25, corresponds to a first period, and the digital values corresponding likewise to a second period and outputs the stored digital values to a first difference operational circuit 27. The first difference operational circuit 27 determines the differences between the digital values corresponding to the first period and the digital values corresponding to the second period that are output from the first digital memory 26 and outputs digital values corresponding to the differences.